

### **REMARKS**

Reconsideration of this application is requested.

Claim 1 has been amended to correct a typographical error and to incorporate the features of claims 2 and 6, now cancelled along with claims 12 to 17, without prejudice or disclaimer of the encompassed subject matter. Applicant reserves the right to pursue any cancelled subject matter in a continuation application. Claim 11 has been amended to change dependency to claim 1. No prohibited new matter has been introduced by any of the amendments.

### **Rejection under 35 U.S.C. 103(a)**

The Examiner has maintained the rejection of claims 1-17 as obvious over US 2002/0068121 to Green *et al.* in view of US 2003/0091656 to Kuhrt for the reasons asserted in the Office Action dated December 17, 2008. In brief, the Examiner notes that Green *et al.* discloses a blend of quercetin and either one of genistein, daidzein or glycitein isoflavones. The Examiner further notes that Green *et al.* fail to disclose hops isoalpha acid. However, the Examiner takes the position that it would be obvious to substitute a hops isoalpha acid, as used in Kuhrt, for the Green *et al.* quercetin, for the purpose of obtaining an anti-inflammatory effect. In the "Response to Arguments" section on pages 2-3 of the Office Action, the Examiner states that because Green *et al.* teaches that the described blend of isoflavones functions as antiinflammatory agents and because Kuhrt teaches that hop acids also act as antiinflammatory agents, a person of ordinary skill in the art would be motivated to modify Green *et al.* to include isomerized hop acids.

Applicant points out that Green *et al.* describe a carefully selected "synergistic mix of a natural flavone and natural isoflavones, wherein the flavone is quercetin and the isoflavones are selected from at least one of the isoflavones from the group consisting of genestein, daidzein and glycitein either in the glucuronide or in the aglucon form" (paragraph [0008] of Green *et al.*) There is no indication in Green *et al.* that this observed synergism is maintained when just any flavone or isoflavone is substituted into the mix. In fact, to the contrary, Green *et al.* teach that only when the flavone is quercetin and the isoflavones are selected from at least one of the isoflavones from the group consisting of genestein, daidzein and glycitein is synergy observed.

Accordingly, Applicant submits that since Green *et al.* teach that only selected flavones and isoflavones can be blended successfully to create a synergistic mixture, a person of ordinary skill in the art would have no motivation to insert into the mix a substantially different chemical entity, such as a hops isoalpha acid, and still have a reasonable expectation that synergy would be preserved. Because the hops isoalpha acids are structurally dissimilar from

the flavones and isoflavones described in Green *et al.* (as evidenced by the sheets of chemical structures previously submitted by Applicant for the Examiner's consideration), they would be expected to have significantly different physicochemical properties. This expectation would be appreciated by a person of ordinary skill in the art and would serve as a major deterrent to any modification of the Green *et al.* mixture to include a hops isoalpha acid.

Furthermore, although Green *et al.* is concerned with inhibition of inflammation in the skin, Kuhrts is only concerned with arthritic inflammation. This is another significant reason why the skilled person would not think to combine the teaching of the two references. After all, the respective purposes of the references are substantively different.

Finally, Applicant again points out that Example 2 of the present application provides incontrovertible proof that the claimed hops iso-alpha acids and isoflavones act synergistically in combination to combat skin inflammation, more especially inflammatory conditions in the skin associated with ageing. There is nothing in the Green *et al.* and Kuhrts references suggestive of this result.

Thus, in summary, Applicant's invention is not obvious from the Examiner's references because there is a total lack of motivation to combine the references to reach the invention and there is an unpredictable and unexpected synergistic result observed from the claimed combination.

In the circumstances, Applicant submits that the Examiner's Section 103(a) rejection should be withdrawn with allowance of all of the claims herein.

Favorable action, consistent with the above, is requested.

Respectfully submitted,

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